

is divided for each step according to a steering angle range of the steering wheel, and the target rotation angle is set for each step.

3. The control method of claim 2, wherein the steering angle range is set by continuously connecting predetermined angle ranges.

4. The control method of claim 2, wherein the target rotation angle calculation operation is performed by an operation of a separately provided mechanism.

5. The control method of claim 1, wherein, in the target rotation angle calculation operation, a separate step rotation mode button is provided on a side surface of a gear shift lever, and the target rotation angle is calculated when the step rotation mode button is operated.

6. The control method of claim 1, wherein, in the target rotation angle calculation operation, when a specific button among gear shift buttons is pressed a predetermined number of times or more or for a predetermined period of time or more, the target rotation angle is calculated.

7. The control method of claim 1, wherein, in the target rotation angle calculation operation, the target rotation angle is continuously changed and set to correspond to the steering angle of the steering wheel.

8. The control method of claim 1, wherein, in the rotation control operation, when the vehicle is rotated in-situ, the steering wheel is rotated in a direction opposite to a rotation direction of the vehicle by as much as an angle at which the vehicle is rotated.

9. The control method of claim 8, wherein, in the rotation control operation, at the same time as the vehicle is rotated, the steering wheel is rotated according to the rotation angle of the vehicle in the direction opposite to the rotation direction of the vehicle, and when the rotation of the vehicle is terminated, the steering wheel is restored and rotated by as much as the angle at which the vehicle is rotated in the direction opposite to the rotation direction of the vehicle to allow a termination point of time of an in-situ rotation to be recognized.

10. The control method of claim 1, wherein, in the rotation control operation, when the vehicle is rotated in-situ, the steering wheel is rotated in a direction opposite to a rotation direction of the vehicle by as much as an angle at which a driver steers the steering wheel.

11. The control method of claim 10, wherein, in the rotation control operation, at the same time as the vehicle is rotated, for the in-situ rotation of the vehicle, the steering wheel is rotated in the direction opposite to the rotation direction of the vehicle according to the steering angle steered of the steering wheel by the driver, and when the rotation of the vehicle is terminated, the steering wheel is restored and rotated by as much as the angle at which the driver steers the steering wheel in the direction opposite to the rotation direction of the vehicle to allow a termination point of time of an in-situ rotation to be recognized.

12. The control method of claim 1, wherein, in the rotation control operation, during an in-situ rotation of the vehicle,

when the steering wheel is additionally steered in a rotation direction of the vehicle, the vehicle is further rotated by as much as an additional steering angle of the steering wheel.

13. The control method of claim 1, wherein, in the rotation control operation, a rotation speed of the vehicle is determined according to a step-in amount of the accelerator pedal to rotate the vehicle.

14. The control method of claim 1, wherein, in the rotation control operation, rotational acceleration is gradually increased within a range of a step-in amount of the accelerator pedal at an initial stage of the rotation of the vehicle.

15. The control method of claim 1, wherein, in the rotation control operation, rotational acceleration is gradually decreased before the target rotation angle is reached at an end stage of the rotation of the vehicle.

16. The control method of claim 1, wherein, in the rotation control operation, when a brake pedal is stepped in while the vehicle is rotated, a rotation speed of the vehicle is reduced.

17. A control method of an in-situ rotation mode of a four-wheel independent steering type vehicle, the control method comprising:

performing a wheel rotation operation for rotating a wheel according to the in-situ rotation mode when the in-situ rotation mode of the vehicle is executed;

performing a target rotation angle calculation operation for calculating a target rotation angle of the vehicle based on a steering angle of a steering wheel when the steering wheel is steered; and

performing a rotation control operation for controlling the vehicle to be rotated in-situ by as much as the target rotation angle when a step-in signal of an accelerator pedal is applied, wherein, in the rotation control operation, a rotation angle of the vehicle is guided through a notification part.

18. The control method of claim 17, wherein, the notification part displays the rotation angle of the vehicle on a cluster or guides the rotation angle of the vehicle through voice.

19. The control method of claim 17, wherein the notification part temporarily provides a different operation feeling to the steering wheel at every predetermined rotation angle during the in-situ rotation of the vehicle.

20. A vehicle comprising:

four wheels configured to operate in an in-situ rotation mode of a four-wheel independent steering type;

a steering wheel;

an accelerator pedal; and

a controller configured to steer and rotate the wheels according to the in-situ rotation mode when the in-situ rotation mode of a vehicle is executed, to calculate a target rotation angle of the vehicle based on a steering angle of the steering wheel when the steering wheel is steered, and to control the vehicle to be rotated in-situ by as much as the target rotation angle when a step-in signal of the accelerator pedal is applied.

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